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The attitude assessment model presented here is intended to be an improvement over methods traditionally used to study attitudes. It takes into account findings by Astin (1969) and Berkowitz (1968), calling for a model expressing the covert behavior of a subject in terms equivalent to those used to anticipate overt behavior. This paper presents the development of an attitude scale from "real life" phenomena based on the actual behavior of the individual, both covert and overt. It assesses the intensity of a given attitude toward or about campus life and suggests an improved method of assessing the reasonable degree of predictability in the linking of attitudes and manifest behavior. The model allows the partitioning of stimuli involved in attitude intensities in such a way that they can be ranked in potency to yield a hierarchy of "volatile" areas deserving administrative attention. At the University of Tennessee, 5 areas of student life were chosen for investigation: classroom conditions, satisfaction with faculty, satisfaction with administrators, total University environment, and present level of morale. Black, white, and international students were selected according to race, sex, class, college and grade point average. The components for assessing the intensity of an attitude were determined by the students' responses during interviews to questions on their significant observations and experiences at the University. (JS)

ETHNIC GROUP ATTITUDES: A BEHAVIORAL MODEL FOR THE STUDY OF ATTITUDE INTENSITY

by

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Background of Study

Recent events occurring on college and university campuses across the United States have pressed college administrators into finding solutions to very taxing demands. Numerous and varied programs, including ex-post-facto self-studies, pilot programs of reform and student-administration interaction models, to name but a few, have been directed toward finding needed solutions. Although much insight has been gained into campus problems, little attempt at generalization has resulted from studies conducted at various institutions. This is particularly true when these data are conceived of as part of a larger comprehensive effort of reform at institutions other than the original locus of study. This dilemma appears to be a function of a number of factors, among them being the fact that variables indigenous to each individual college or university influence the results. Consequently, it is not surprising that data and results derived from such studies as The Muscatine Report (Berkeley) find little application as valid bases for action at other institutions.

In any event, on-going programs directed toward the identification of potential crisis areas as well as the assessment of the magnitude of present problems would seem to be an absolutely essential practice for problem solving and smooth functioning of any institutional enterprise. However, it appears that assessment models for the diagnosis and potential

cures of campus ills have been given little attention. This is unfortunate because it is at the model level that generalization can take place. A well constituted assessment model is as applicable at one institution as it is at another.

There have been numerous attempts to study the attitudinal characteristics of campus parameters, but their shortcomings relative to generalization as well as their practical use in valid problem solving is, in the minds of the present writers, directly proportional to the limits of traditional attitude assessment models. Administrative decisions based upon the results derived from such models may not be accurate due to the attitude model alone. The lack of clear understanding on policy decisions and a paucity of accurate information on which to base judgments can end in disaster, particularly in a multiversity where there is little effective internal communication with the student body.

Traditionally, attitude studies have employed a scalar device to assess magnitudes of feeling relative to a given attitudinal object. These models have found wide acceptance, use and generalization. However, a number of assumptions have accompanied the use of the traditional model, particularly assumptions regarding the concept of "attitude" and "use" of the scale. One primary assumption has been that the scale, regardless of its length, represents a continuum of attitudinal magnitude or response, the stimulus conditions of which are unknown to both the rater and researcher. Another assumption, and one which is perhaps more used and misused than the former, pertains to the use of the scale. The literature contains many attitude studies which have assumed that

the attitudinal event being measured, and which is to be scaled, is actually operative in the meaningful life space of the rater. This assumption has resulted in disappointing and rather expensive (money, time and energy) studies demonstrating the neutrality or non-existence of an attitude which, purportedly, was in operation. An example of the last fallacy would be a study to assess the attitudes of Canadian backwoods guides toward the use of LSD. The typical attitude scale would most likely yield results demonstrating that these men neither approved nor disapproved of LSD. In short, LSD does not operate within their meaningful life space. The example also demonstrates the sampling problem in attitudinal research. Lastly, and although not an assumption, most attitude scales fall short in the area of predictability, particularly in the prediction of overt behavior. By its very definition, an attitude is a "pre-disposition to respond," and the fact that it is a response, in and of itself, has been grossly overlooked. For this reason, most definitions of an attitude are followed by statements such as . . . "given the optimum conditions a behavior commensurate with the attitude will result." However, the optimum conditions are rarely specified nor are the stimuli which give rise to the attitudinal response outlined, both of which are necessary if attitude studies are to be useful in the prediction of behavior rather than just reporting the status quo. In the final analysis, the traditional model leaves a great deal to be desired. It can be generalized, but its inherent faults go with it.

The attitude assessment model presented in this paper attempts to improve upon the approach taken in attacking the previously outlined

problems, and also takes into account two recent and very important findings: first, that attitude studies can predict the scale of overt behavior (Astin, 1969); and secondly, that the rather "innocent" existence of perceived volatile materials, issues, and objects in the life space of an individual have enough stimulus potency to precipitate hostile and aggressive acts (Berkowitz,1968). Both of these findings seem to call for an attitude assessment model which would have its roots in the stimulus - organism - response paradigm commensurate with the same approach employed to express and predict overt behavior. That is, they call for a model which expresses the covert behavior in terms equivalent to those used to anticipate overt behavior. Consequently, the present paper addresses itself to the problem of attempting to construct an improved model for assessing the intensity of a given attitude toward or about campus life, one which attempts to avoid the faults of the traditional model. It presents the development of an attitude scale from "real life" phenomena based on the actual behavior of the individual, both covert and overt, within his environment. Secondly, it suggests an improved method of assessing the meaningful life space of a single individual as well as of a group of individuals. Further, it attempts to develop a reasonable degree of predictability into a model such that attitudes and manifest behavior can become connected in a predictable fashion. Lastly, it is believed that the model is capable of proposing and establishing a hierarchy of attitude intensity such that it will yield a scale tentatively termed a "volatile scale," or scale of volatile issues.

Of the various components of an attitude, perhaps the most important for helping to determine the point at which attitudes are manifested

into observable behavior is intensity. The present writers are tempted to say that, all other things being equal, the greater the intensity component of an attitude, the greater the probability that overt behavior commensurate with that intensity, or behavior in general, will find expression, provided the optimum conditions present themselves. The present attitude model for the measurement of intensity attempts to define what those optimum conditions might be at one educational institution. Further, insofar as the definition of an attitude has traditionally been a predisposition to respond, an attempt will be made here to answer - "respond to what?" The end result, hopefully, is that the present assessment model for attitude intensity will be of value due to the fact that it can bring to awareness not only what sets the stage for behavior, but also where the stage is set and, more importantly, what the cues are which trigger aggressive or disruptive behavior.

The attitude model employed in the present study has its origin in the work of Gerald Whitlock (1963) at The University of Tennessee. Whitlock conducted research in the area of job performance evaluation designed to demonstrate the psychophysical basis of attitude intensity. Drawing from S. S. Stevens' (1958) article, "The Problems and Methods of Psychophysics," wherein Stevens demonstrated that the relationship between the magnitude of a sensation (or response) varied as a power function of stimulus intensity, Whitlock hypothesized that the psychophysical law held true for areas calling for complex judgments, such as job performance evaluation and attitude judgment and intensity.

In the area of attitudes Whitlock felt that there were two major questions to be answered if a psychophysical basis for attitude intensity was to be established. These questions concerned, first, the stimuli for the responses termed attitude intensities, and secondly, the relationship between varying amounts of the stimulus and the resulting response (p. 3).

In answering the first question Whitlock contended that the stimulus for the response called an attitude rating was the set of observations which brought about the "valuative" reaction regarding the attitude object. In other words, response magnitudes or attitude intensity can be expressed in terms of stimulus magnitudes. Furthermore, he reasoned that those observations furtherest from the means of a distribution of observations, plus and minus, would be more likely to produce the response reflected in the attitude rating. This being the case, his procedure was to collect both favorable and unfavorable attitude specimens from subjects within a specific group. The stimulus magnitude then becomes the number of actual observations in the set, or more appropriately, the ratio of plus to minus specimens; i.e., the ratio of the plus reactions to the minus reactions.

The response magnitude or attitude intensity is a power function of the plus to minus attitude, or observational specimens. In short, the overall evaluative response, attitude intensity, is a function of the number of prior valuative reactions (p. 5). This relates stimulus to response.

In summary, Whitlock (p. 6) contends that, "An attitude is a psychological mechanism for coding experiences in such a way as to pre-

dispose one positively or negatively toward something. The strength of this predisposition is what is meant by attitude intensity, and the strength or intensity of the attitude is a function of the number and kind of (strongly) positive and (strongly) negative experiences relating to the attitude object."

Whitlock and his students have demonstrated and established the fact that the psychophysical law holds for attitude intensities; in brief, that there does exist a relationship between stimulus and response magnitudes in the area of attitude intensity which can be described as a power function.

The present study accepted the basic Whitlock rationale and the power function was assumed to be a valid description of the relationship between stimulus and response magnitudes. The present researchers were primarily concerned with adapting the Whitlock model and procedure for the assessment of attitude and the prediction of behavior.

The basic model has the advantages of describing attitudes in lawful stimulus and response terms, of assessing the relevant-operative attitudinal or behavioral life space of the subjects prior to attitude assessment, the description of an attitude as a response, and the additional characteristic of allowing one to partition the intensity of an attitude rating over its stimulus components to discover the potential crisis areas. The latter is equivalent to partitioning the various sums of squares across the total sums of squares in the analysis of variance to find where significance lies. Perceived in this way, the stimulus components or behavioral specimens with greatest magnitude can be assumed to be contributing the greatest degree of value to the response magnitude or attitude rating.

Primary emphasis was placed upon the generation of a model, rather than upon the data in the present investigation, to see if the model was feasible for programmatic implementation.

Procedures

With the previous material as a basis for a study of attitude intensity, five areas of student life at The University of Tennessee were chosen for investigation: (1) classroom conditions; (2) satisfaction with faculty; (3) satisfaction with the University administrators; (4) the total University environment; and (5) the student's present level of morale. These were considered to be "attitude objects" in the present study. It was felt that these five areas were representative of the behavioral specimens elicited.

Particular interest centered around the question of potential differences in attitude intensities and the stimulus magnitude as representative of the three major student factions: (1) white students; (2) black students and (3) international students. Questions such as the overall average attitude intensity felt by UT students, the differences in attitude intensity between the three groups, the differences in concern toward the University and their associated intensity between the three groups, and the identification of potential critical issues, were all areas which were explored.

Using the following methodology, interviews were conducted for the purpose of eliciting behavioral specimens to form a behavioral checklist. Students representing the three groups, white, black and international, were chosen via stratified random sampling on the variables

of race, sex, class, college and grade point average from the student files at UT. They were contacted by telephone asking them if they would be willing to undertake a brief interview for the purposes of constructing an attitudinal measuring instrument. Three interviewers, two black and one white, conducted the interviews. These students were interviewed by members of their own race. All interviewees were asked the following questions via a standardized interview guide:

1. Has anything happened to you as a student during the last quarter such that when it happened it made you feel very <u>favorable</u> toward the University or some aspect of your life as a student? Responses to this question were considered "positive" behavior specimens.
2. Has anything happened to you as a student during the last quarter such that when it happened it made you feel very <u>unfavorable</u> toward the University of some aspect of your life as a student? Responses to this question were considered "negative" behavior specimens.

A total of 337 attitude or behavior specimens were taken before interviewing was stopped at 132 interviews. The researchers had continued the interview process until the probability of receiving any new specimens was very slight (.05 level of probability). The importance of the interview item was indicated by the frequency of its occurrence.

There was considerable overlap between the three groups in the area of specimen type, and a rather confusing situation arose which necessitated a slight deviation from the Whitlock method. Whitlock's procedure maintained a verbatim reproduction of the specimens randomly

arranged on a behavioral checklist, and the positive or negative characteristic of the specimen remained intact for the subjects to check providing they had experienced the specimen. However, in the present study, a positive specimen for one group often was a negative specimen for another group. In an effort to avoid stating both the positive and negative case of the same specimen, it was decided to state the specimen in neutral form and under it to place a nine point algebraic intensity scale. The subject was asked to check the item if he had experienced it and then rate the item as to his "felt" intensity of the experience - plus or minus. This procedure allowed the subject not only to state whether his experience had been positive or negative but also how intensely he had felt or experienced the specimen or item. By employing this method it was possible to consolidate the 337 attitude specimens into 108 statements which constituted the items for the behavioral checklist.

Following the formulation of the 108 items, they were arranged randomly in a behavioral checklist. At the end of each checklist, a series of five scales were included in an effort to assess the level of attitude intensity or response magnitude toward five major aspects of student life. These items as previously mentioned were:

1. How satisfied are you with the conditions surrounding your classwork?
2. How satisfied are you with the faculty?
3. How satisfied are you with the University administration in general?

4. Considering <u>everything</u> which affects you as a student, how satisfied are you with The University of Tennessee?
5. Please circle the place on the scale that best describes your <u>present</u> level of morale.

All of the above items were accompanied by a nine point algebraic scale, and the subjects were asked to rate their level of satisfaction or dissatisfaction.

The last item on the questionnaire was an open-ended question allowing the subjects to comment on events which they had experienced and felt were important, but which were not included as specimens.

The subjects chosen to respond to the checklist were all students at The University of Tennessee at the onset of the research program. A matched pairs design was chosen for use with black and white groups; and the smallest group, the international students, was used as the criterion group. All subjects were chosen and matched on as many of the following five characteristics as possible:

1. In-State - Out-of-State; i.e., residence
2. Sex
3. College
4. Class
5. Cumulative grade point average

A total of 852 checklists were mailed to the selected samples which were broken down as follows:

1. Black 298
2. Foreign 245
3. White 310

A cover letter explaining the research and the guarantee of confidentiality accompanied each checklist. For purposes of identification, the checklists were coded.

A three-week waiting period elapsed after which three weekly "probes" were employed in an effort to increase the quantity of return. The probes were conducted by telephone where possible and by mail where a telephone was not available to the respondent. Of the 852 questionnaires sent out, 389 were returned, making the percentage of return 46 percent. The number returned per group was as follows:

1. Black students 100
2. Foreign students 111
3. White students 153
4. 25 returned for which the code number had been removed.

The primary analysis employed in the present research consisted of computing the response bias ratio plus/minus observations in an effort to determine attitude intensity. All analyses were computer assisted via the program analysts at the University computer center.

Non-Statistical Hypotheses

The following non-statistical hypotheses were examined:

1. A meaningful hierarchy of attitude intensity or stimulus magnitude can be ascertained by computing the plus to minus ratio of favorable to unfavorable observations. Ascertained by observation only, this hierarchy should relate well with the response magnitude of the five attitude objects: classroom, faculty, administration, student life space and student morale.

2. From the above analysis a "volatile scale," comprised of specific issues which had been checked and rated by at least 50 percent of any one group can establish potential crisis points within and between the various groups of students. This scale can suggest how critical overt behavior may manifest itself on campus.

Analysis of Results

Plus to minus bias ratios (+/-) were computed for all behavioral specimens checked by at least 50 percent of the respondents of any of the three groups. These ratios were computed by dividing the number of positive specimens checked by the number of negative specimens checked. This process yielded 90 specimens, a quantity difficult to analyze in a meaningful way. This being the case, the specimens were individually scrutinized in an effort to eliminate those items which were considered to be of low potency relative to establishing a hierarchy of volatile stimuli. This procedure left 21 specimens for the final analysis, all of which were considered individually potent as well as cumulatively volatile. A list of these 21 specimens, subjectively selected, appears in Table I (p. 14). Table I also includes a category type statement indicating in which of the four major response categories the stimulus or specimen was grouped. The four major categories or attitude objects were: classroom, faculty, administration, and student environment. Student morale, a fifth attitude object category, was considered to be comprised of all stimulus (specimen) components, and is thus considered to accompany each specimen.

TABLE I

BEHAVIORAL SPECIMENS AND ATTITUDE OBJECTS

Number	Behavioral Specimens	Attitude Object
1.	I have received special consideration or recognition because of my race.	Student Environment
2.	The large size of my classes.	Classroom
3.	Interracial dating.	Student Environment
4.	The refusal of the U.T. administration to allow Dick Gregory to speak on the U.T. campus.	Administration
5.	The existence of a Black Student Union on the U.T. campus.	Student Environment
6.	Compulsory dormitory hours for girls.	Administration
7.	The policy of admitting all graduates of Tennessee high schools to U.T. has enhanced the opportunity for minority group students to attend college.	Administration
8.	Discussions about interracial dating.	Student Environment
9.	The increase in the number of Negro students on campus this year.	Student Environment
10.	Black Student Union display at the Student Center.	Student Environment
11.	The manner in which the administration has handled the open speaker policy issue.	Administration
12.	The friendliness of U.T. students toward me on the campus.	Student Environment
13.	The performance of members of another racial group in class as compared to my own group.	Classroom
14.	The playing of the song "Dixie" at U.T. athletic events.	Student Environment

Con't.

TABLE I (CONTINUED)

Number	Behavioral Specimens	Attitude Object
15.	The non-existence of Negro fraternities and sororities at U.T.	Student Environment
16.	The lack of demonstrations on the U.T. campus	Student Environment
17.	The passage of an open speaker policy with some administrative or faculty restrictions.	Administration
18.	The passage of an open speaker policy with no administrative or faculty restrictions.	Administration
19.	My relationship with other racial group members in class.	Classroom
20.	Interracial dating of white female and Negro male.	Student Environment
21.	The creation of a Black Studies program on the U.T. campus.	Classroom

The analysis of the data concerned not only the establishment of a scale of stimulus potency, but also the discovering of the relationship of the stimulus specimens to the response magnitudes or attitude intensities. Mean attitude intensities were computed for each of the five previously mentioned attitude objects. This allowed an analysis of the relationship of a single specimen or stimulus to the attitude object as well as providing insight as to the manner in which the stimulus magnitude was partitioned across the attitude intensity for any given object. In short, it provided a visual analysis of the stimuli which precipitated the attitudinal intensity response.

Table II (p. 17) presents the percentage of favorable and unfavorable responses elicited from the three groups on each of the five attitude objects. These percentages were derived from a nine point scale having a mid-point of 5.0. All scores falling at the scalar mid-point were excluded. This accounts for the two presented percentages (favorable and unfavorable) not equalling 100 percent. As the percentages demonstrate, each of the attitude objects had a rather moderate attitude intensity. That is, the percentage of favorable responses was larger than the percentage of unfavorable responses, with one exception - the Black group's attitude toward the administration. Here, the percentage of unfavorable responses outnumbers the percentage of favorable responses.

The Volatile Scales appearing in Tables III (p. 18), IV (p. 19) and V (p. 20) present the rank order of bias ratios for the three student groups, black, white and international respectively. The rank of "1" was assigned to the most potent or volatile stimulus (specimen), which

TABLE II

PERCENTAGE OF FAVORABLE AND UNFAVORABLE
RESPONSES FOR FIVE ATTITUDE OBJECTS PER GROUP

Attitude Object	Black		White		International	
	% Fav.	% Unfav.	% Fav.	% Unfav.	% Fav.	% Unfav.
Classroom	50	35	60	24	57	19
Faculty	61	23	71	17	63	22
Administration	38	42	47	35	51	23
Student Environment	60	30	76	14	65	18
Overall Morale	56	20	67	20	65	15

had been computed via the bias ratio of the plus to minus response. The lower the ratio, the more negative the assumed potency of the specimen, hence the rank of 1 for the lowest ratio.

An initial observation of these tables demonstrates that the black students had greater bias ratios on nearly all specimens. This was true for both the positive and negative ends of the scale.

Interestingly, although each specimen was included in the scales of each of the three groups, the rank order of specimen or stimulus potency is markedly different. In short, by visual inspection alone, one may observe a low rank order correlation between the three groups, even though at least one of the three groups had to have reached the criteria of 50 percent or more responding before the specimen could be included in the scale. Said in another way, the three groups differed considerably in their perception of what constituted a potent stimulus or specimen.

TABLE III

VOLATILE SCALE - BLACK STUDENTS*

Rank	Behavioral** Specimen Number	Behavioral Specimen**		Scalar Response Extremes % Neg. (1,2)+	% Pos. (8,9)+	Bias Ratio(+/-)
1	11	Handling Open Speaker Policy	(A)	72	3	.057
2	14	The Song "Dixie"	(S)	69	1	.074
3	4	Dick Gregory's Speech	(A)	74	5	.076
4	6	Compulsory Dorm Hours	(A)	50	5	.09
5	15	Negro Frat. & Sorority	(S)	74	5	.095
6	2	Large Class Size	(C)	19	7	.40
7	1	Special Racial Recognition	(S)	20	4	.50
8	17	Restricted Open Speaker Policy	(A)	29	18	.78
9	16	Lack of Campus Demonstrations	(S)	9	15	.92
10	7	High School Admission Policy	(A)	11	43	4.06
11	18	Open Speaker Policy	(A)	5	46	4.06
12	3	Interracial Dating	(S)	5	32	4.36
13	12	Student Friendliness	(S)	7	29	4.84
14	19	Class Race Relations	(C)	5	39	7.7
15	8	Interracial Dating Discussions	(S)	3	30	8.5
16	13	Racial Group Performance	(C)	2	14	10.5
17	20	Dating of White Female and Black Male	(S)	4	29	11.5
18	5	Black Student Union	(S)	1	76	23.25
19	9	Negro Enrollment Increase	(S)	2	74	30.00
20	10	B.S.U. Display	(S)	0	66	43.00
21	21	Black Studies Program	(C)	1	76	47.00

*All behavioral specimens are ranked in descending order from extremely negative to extremely positive.

**All behavioral specimens and attitude objects have been abbreviated (see Table I).

+On the nine point scale, the above represent the percentage of extremely favorable responses (8,9) and extremely negative responses (1,2). Presumably, it is with these individuals and issues that overt behavior is most likely to manifest itself.

TABLE IV

VOLATILE SCALE - WHITE STUDENTS*

Rank	Behavioral** Specimen Number	Behavioral Specimen**		Scalar Response Extremes % Neg. (1,2)+	% Pos. (8,9)+	Bias Ratio(+/-)
1	6	Compulsory Dorm Hours	(A)	52	10	.20
2	20	Dating of White Female and Black Male	(S)	24	4	.27
3	11	Handling Open Speaker Policy	(A)	54	14	.34
4	4	Dick Gregory's Speech	(A)	49	20	.42
5	3	Interracial Dating	(S)	17	5	.44
6	2	Large Class Size	(C)	21	4	.45
7	15	Negro Frat. & Sor.	(S)	7	6	.58
8	1	Special Racial Recognition	(S)	3	3	.75
9	10	B.S.U. Display	(S)	13	7	.81
10	18	Open Speaker Policy	(A)	26	34	.93
11	5	Black Student Union	(S)	13	17	1.20
12	8	Interracial Dating Discussion	(S)	12	8	1.20
13	17	Restricted Open Speaker Pol.	(A)	20	25	1.86
14	9	Negro Enrollment Increase	(S)	6	12	2.17
15	21	Black Studies Program	(C)	9	18	2.67
16	14	The Song "Dixie"	(S)	15	47	2.70
17	7	High School Admissions Pol.	(A)	9	16	3.00
18	16	Lack of Campus Demonstration	(S)	5	41	3.33
19	13	Racial Group Performance	(C)	1	8	3.42
20	12	Student Friendliness	(S)	4	42	6.33
21	19	Class Race Relations	(C)	1	16	8.80

*All behavioral specimens are ranked in descending order from extremely negative to extremely positive.

**All behavioral specimens and attitude objects have been abbreviated (see Table I).

+On the nine point scale, the above represent the percentage of extremely favorable responses (8,9) and extremely negative responses (1,2). Presumably, it is with these individuals and issues that overt behavior is most likely to manifest itself.

TABLE V

VOLATILE SCALE - INTERNATIONAL STUDENTS*

Rank	Behavioral** Specimen Number	Behavioral Specimen**		Scalar Response Extremes % Neg. (1,2)+	% Pos. (8,9)+	Bias Ratio(+/-)
1	11	Handling Open Speaker Policy	(A)	34	13	.38
2	15	Negro Frat. & Sor.	(S)	12	4	.40
3	2	Large Class Size	(C)	23	3	.42
4	4	Dick Gregory's Speech	(A)	29	13	.45
5	6	Compulsory Dorm Hours	(A)	24	11	.54
6	17	Restricted Open Speaker Pol.	(A)	17	17	1.07
7	18	Open Speaker Policy	(A)	16	21	1.11
8	14	The Song "Dixie"	(S)	8	14	1.13
9	16	Lack of Campus Demonstration	(S)	8	14	1.15
10	20	Dating of White Female and Black Male	(S)	8	8	1.25
11	7	High School Admission Policy	(A)	6	5	1.28
12	10	B.S.U. Display	(S)	5	11	1.80
13	1	Special Racial Recognition	(S)	7	8	1.90
14	3	Interracial Dating	(S)	10	19	1.92
15	8	Interracial Dating Discussion	(S)	8	18	2.16
16	21	Black Studies Program	(C)	4	15	3.12
17	5	Black Student Union	(S)	5	19	5.00
18	13	Racial Group Performance	(C)	0	8	5.66
19	12	Student Friendliness	(S)	5	29	7.88
20	19	Class Race Relations	(C)	2	27	14.25
21	9	Negro Enrollment Increased	(S)	2	28	18.00

*All behavioral specimens are ranked in descending order from extremely negative to extremely positive.

**All behavioral specimens and attitude objects have been abbreviated (see Table I).

+On the nine point scale, the above represent the percentage of extremely favorable responses (8,9), and extremely negative responses (1,2). Presumably, it is with these individuals and issues that overt behavior is most likely to manifest itself.

Inspection of the three scales in Tables III, IV, and V allows one to ascertain those stimuli or specimens which have the greatest probability of precipitating overt behavior commensurate with the response bias ratio, as well as providing an idea of the target area or attitudinal object toward or about which the behavior might take place. For example, the most potent stimulus or specimen for the black student groups was specimen 11 (the manner in which the administration has handled the open speaker policy issue), which had the bias ratio of .057, and the attitudinal object or target area for overt behavior would be the administration because the specimen is in the administration category of attitudinal objects (see Table II). The analysis of attitude intensity and the partitioning of the stimuli arousing or eliciting that intensity becomes merely a matter of moving down each of the three scales.

The negative side of the stimulus magnitudes have been the only side mentioned up to this point. There is, however, the positive side; that is, those specimens at the bottom of each scale are highly positive in potency. Perhaps these are stimuli which should be emphasized to retard the effects of the negative end of the scale. For example, the black students found specimen 21 (the creation of a Black Studies program on campus) to be very positively potent.

Taken as a conglomerate, a comparison of the three scales, Tables III, IV, and V, do point up one very important finding: student factions cannot be considered as a homogeneous group with homogeneous attitude intensities relative to the same stimuli. In short, stimulus magnitudes are only homogeneous for specific groups even though, in the present case, all three groups perceive the target area attitudinal

object as important and have observed it as so. This is evident for specimen 17 (the passage of an open speaker policy with some administration restrictions) where 73 percent of the black student sample and 82 percent of the white student sample checked it. However, their ratios were considerably different, being .93 and 1.86 respectively and the rank order was respectively 8 and 12. In other words, the specimen was a negative stimulus for the black students, but a positive one for the white students.

The international student sample comprised an interesting and quite different group. For the most part they had the highest across the board mean attitude intensities for all of the attitude objects listed in Table II. Furthermore, they generally had the highest bias ratios across all specimens, which would lead one to conclude that they are rather impotent as a volatile group.

In an effort to present and conceptualize the relationship of the stimuli magnitude to attitude intensity or response magnitude, each of the Volatile Scales can be compared with the percent favorable to unfavorable response for each attitude object including morale for each specimen by referring to Table II. Interestingly, the morale level for the black student sample appears higher than it is for the white student sample, but not as high as the international student sample. One may observe subjectively that although the stimuli are more intense or potent for the black students, there are hopeful solutions and feelings of intensity about the attitude object in this group. On the other hand, the white students morale level might indicate the opposite; i.e., they do not have high stimulus magnitudes nor high attitude intensities.

Conclusions

Although this presentation and discussion of results does not exhaust all possible analyses of the data, it does demonstrate the applicability of the psychophysical S-R model for the analysis of attitude intensities. It does appear to have the methodological advantages of being based on behavior which, even though covert, is potentially predictive of overt behavior. Furthermore, it extracts from the student via interview what he observed or experienced as important stimuli and uses these as the components for assessing the response magnitude or attitude intensity toward or about a global area such as the administration of a university. Commensurate with this, the model does allow the partitioning of the stimuli involved in attitude intensities in such a way that they can be ranked in potency to yield a hierarchy of areas deserving administrative attention.

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